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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,114

10/02/2003

Lo Mao

BHT-3092-387

6035

7590 06/26/2007
BRUCE H. TROXELL
SUITE 1404
5205 LEESBURG PIKE
FALLS CHURCH, VA 22041

EXAMINER

HORTON, YVONNE MICHELE

ART UNIT

PAPER NUMBER

3635

MAIL DATE

DELIVERY MODE

06/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/676,114

Applicant(s)

MAO, LO

Examiner

Yvonne M. Horton

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 13, 14, 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "supporting member contacting the supported member" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is not clear how the supporting member contacts the supported member if there is an isolator positioned therebetween. Clarification is required.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1,3-7,9,13,14 and 16-21 are rejected, *as best understood*, under 35 U.S.C. 103(a) as being unpatentable over US Patent #6,237,303 to ALLEN et al. In reference to claims 1 and 16, ALLEN et al. discloses a bending moment structure and method for fabricating such including a plurality of supported members (102) having two ends, one of which is joined to a connection element (as at 48); a plurality of supporting members (100) also joined to the connection element (48) at a support spot wherein the supported member (as at 136) moves to endure the bending moment. ALLEN et al. does not explicitly detail that his members contact; however, due to the use of the slot (136) makes some amount of close contact, even if only a minimal amount. For instance, when a force is applied both components have an equal and opposite force inflicted upon one another. The presence of the slot acts as a "buffer" which prevents the members from deforming because of the forces generated between the members. Having a slot does not prevent the members from making contact, it

Art Unit: 3635

merely provides a "cushion" to soften the contact or make the contact as minimal as possible. Furthermore, the amount of displacement that the slot undergoes depends upon the load being applied thereon. Of course lighter loads may not even cause the member to deflect at the slot; however, much heavier loads will cause the slot to displace. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the members of ALLEN et al. contact. In reference to claims 3 and 7, the members are H/I-shaped. Regarding claim 4, the members have two or more deflection points (as at each end thereof). In reference to claims 6 and 9 the supporting members (100) are disposed laterally of the supported members (102) such that the supported members are disposed between the supporting members. Regarding claims 13,14,20 and 21, the members contact when there is no action from loading and when a load is exerted thereon. In reference to claims 18 and 19, members are non-prismatic shaped. Regarding claim 15, ALLEN et al. discloses the method of selecting the supporting members (100), determining cross-sections thereof, placing an end at a support spot (48) in a deflection path that is formed due to the supported member (102).

Claims 2,5 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #6,237,303 to ALLEN et al. in view of US Patent #6,012,256 to ASCHHEIM. ALLEN et al. discloses the basic claimed structure except for the member having a hollow cross-section. ASCHHEIM teaches that it is known in the art to form a structure with hollow supported and supporting members (3). Further, the applicant has shown not criticality for a hollow member as opposed to any other shaped member.

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select a shape suitable for the use intended as an obvious matter of design choice. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the members of ALLEN et al. similar to those formed by ASCHHEIM since hollow and shaped members are art recognized equivalents.

Allowable Subject Matter

Claims 8,10-12,15 and 22 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

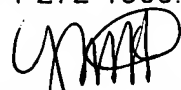
Applicant's arguments filed 04/02/07 have been fully considered but they are not persuasive. Regarding the applicant's argument that ALLEN et al. does not teach contacting members, when a force is applied both components have an equal and opposite force inflicted upon one another. The presence of the slot acts as a "buffer" which prevents the members from deforming because of the forces generated between the members. Having a slot does not prevent the members from making contact, it merely provides a "cushion" to soften the contact or make the contact as minimal as possible. Furthermore, the amount of displacement that the slot undergoes depends upon the load being applied thereon. Of course lighter loads may not even cause the member to deflect at the slot; however, much heavier loads will cause the slot to displace.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (571) 272-6845. The examiner can normally be reached on 6:30 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Yvonne M. Horton
Examiner
Art Unit 3635